CLAIMS

What is claimed is:

1. An image forming apparatus comprising:

a plurality of processing circuits categorized into first and second blocks with respect to respective functions of the plurality of circuits;

a power transformer having a plurality of secondary windings;

a first power supply unit for always feeding DC current to the first block of processing circuits from at least one of the plurality of secondary windings;

a second power supply unit for feeding DC current to the second block of processing circuits from the plurality of seconding windings other than the at least one of the plurality of secondary windings;

at least one switch located between the plurality of secondary windings and the second block of processing circuits for interruption of power supply to the second block of processing circuits; and

a control unit for controlling the respective switch such that the DC current from the secondary windings to the second block of processing circuits is interrupted in a power save mode and the DC current is fed to the second block of processing circuits from the secondary windings in a normal mode.

2. The image forming apparatus according to claim 1, wherein the control unit is operated with the DC current from the first power supply.

3. The image forming apparatus according to claim 1 further including a voltage converting circuit for converting DC voltage of the first power supply unit to DC voltage of another level such that the DC voltage of another level is fed to the second block of processing circuits.

4. The image forming apparatus according to claim 3, wherein the second

block of processing circuits includes an image processing circuit, a printing unit, an image scanning unit and a communication control unit, and the DC current is fed to the second block of processing circuits from the voltage converting circuit in the power save mode.

5. The image forming apparatus according to claim 3, wherein the voltage converting circuit is a DC to DC converter.

6. The image forming apparatus according to claim 3, wherein the voltage converting circuit is a three-terminal regulator.

7. The image forming apparatus according to claim 3, wherein the second block of processing circuits includes an image processing circuit, a printing unit, an image scanning unit and a communication control unit, and the DC current is fed to the second block of processing circuits in the normal mode.

8. An image forming apparatus comprising:

a plurality of processing means for performing a plurality of functions;

a plurality of power supply means for feeding DC current to the plurality of processing means based on AC current from a plurality of secondary windings of a power transformer; and

switching means for interrupting AC current to be fed to the plurality of power supply means from the plurality of secondary windings in a power save mode except for at least one of the plurality of power supply means.

9. The image forming apparatus according to claim 8 further including control means for controlling the switching means, and wherein the control means is operated with DC current fed from the at least one of the plurality of power supply means.

10. The image forming apparatus according to claim 8 further including voltage converting means for converting DC voltage fed from the at least one of the plurality of power supply means to another level of voltage such that the another level of DC voltage is fed to the respective processing means from the voltage converting means in the power save mode.

11. The image forming apparatus according to claim 10, wherein the voltage converting means is a DC to DC converter.

12. The image forming apparatus according to claim 10, wherein the voltage converting means is a three-terminal regulator.

13. The image forming apparatus according to claim 8, wherein the plurality of processing means includes image processing means, printing means, image scanning means and communication controlling means.

14. The image forming apparatus according to claim 8 further including means for determining whether an element of the image forming apparatus is moved, and for interrupting power supply to high voltage components among the plurality of processing means.